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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,292	04/21/2004	Koji Shimazawa	119514	4807
25944	7590	01/02/2008	EXAMINER	
OLIFF & BERRIDGE, PLC			RENNER, CRAIG A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/828,292

Applicant(s)

SHIMAZAWA ET AL.

Examiner

Craig A. Renner

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 October 2007 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 13-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In lines 20-21 of claim 13, "wherein the first gap film is thicker than the magnetic domain controlling layers to suppress the effects of a defective side lobe" is indefinite as it is misdescriptive of the disclosure, which teaches/shows that "the total thickness G1+Gsv of the MR film 30 and the first gap layer 305 can be set larger than

the thickness of the magnetic domain controlling layers 21 and 22" in paragraph [0063], for instance (emphasis added).

b. Claims 14-17 inherit the indefiniteness associated with independent claim 13 and stand rejected as well.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi et al. (US 2003/0035256).

Hayashi et al. (US 2003/0035256) teaches a magnetoresistive effective element (Fig. 3, for instance) comprising a first shielding layer (2), a second shielding layer (12), a magnetoresistive effective film (includes 4, 5, 6, and 7), a first gap film (8), a pair of magnetic domain controlling layers (each 10), and a bottom electrode layer (3), the first shielding layer and the second shielding layer being separated by a given distance (as shown in Fig. 3, for instance), the magnetoresistive effective film being disposed in between the first shielding layer and the second shielding layer (as shown in Fig. 3, for instance), the first gap film being made of electrical conductive material (lines 1-4 in paragraph [0122] on page 7, for instance), and formed on the magnetoresistive effective

film commensurate with a surface configuration of the magnetoresistive effective film (as shown in Fig. 3, for instance), the magnetic domain controlling layers surround and extend along both sides of the magnetoresistive effective film, respectively (as shown in Fig. 3, for instance), the bottom electrode layer being electrically connected to the magnetoresistive effective film on a side away from the first gap film (as shown in Fig. 3, for instance), the bottom electrode layer constituting one of a pair of second gap layers (as shown in Fig. 3, for instance), the second shielding layer functioning as a top electrode layer (lines 7-8 in paragraph [0063] on page 3, for instance) electrically connected to the first gap film (as shown in Fig. 3, for instance), and the second shielding layer constituting the other of the pair of second gap layers (as shown in Fig. 3, for instance), wherein a total thickness of the magnetoresistive effective film and the first gap film is greater than the magnetic domain controlling layers to suppress the effects of a defective side lobe (as shown in Fig. 3, for instance, in so far as this limitation is definite and understood as detailed in paragraph 3a, supra) [as per claim 13]; wherein the magnetoresistive effective film is made of a spin valve film or a ferromagnetic tunnel junction film (as shown in Fig. 3, for instance) [as per claim 14]; wherein the first gap film is made of metal (lines 1-4 in paragraph [0122] on page 7, for instance) [as per claim 15]; wherein a total thickness of the magnetoresistive effective film and the first gap film is set larger than a thickness of the magnetic domain controlling layers (as shown in Fig. 3, for instance) [as per claim 16]; and wherein both sides of the second shielding layer are depressed at both sides of the magnetoresistive

effective film in a front view, respectively (as shown in Fig. 3, for instance) [as per claim 17].

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig A. Renner whose telephone number is (571) 272-7580. The examiner can normally be reached on Tuesday-Friday 9:00 AM - 7:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information
system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Craig A. Renner
Primary Examiner
Art Unit 2627

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